Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A low-output microwave lighting system comprising:

a rectifier for rectifying general AC power inputted through a power source unit and outputting a DC voltage;

a power factor compensator for compensating a power factor of the DC voltage inputted through the rectifier;

an inverter circuit unit for receiving the power factor-compensated DC voltage and outputting an AC voltage through frequency varying;

a magnetron driving unit for transforming the AC voltage inputted from the inverter circuit unit and generating a magnetron filament current and a high level voltage; and

a magnetron lighted by the high level voltage and current outputted from the magnetron driving unit, wherein the power factor compensator comprises,

a PFC controller for outputting a ~~controlling a~~control signal for power factor compensation by a rectified signal inputted through the rectifier, and

a PFC circuit unit for receiving the control signal and compensating a power factor of the DC voltage inputted through the rectifier.

2-3. (Canceled)

4. (Original) The system of claim 1, wherein the inverter circuit unit comprises:

a half-bridge type inverter unit for receiving the DC voltage outputted from the power factor compensator, varying a frequency of the DC votlage, and outputting a corresponding AC voltage; and

an inverter driving unit for outputting a switching control signal for controlling switching of the half-bridge type inverter unit.

5. (Original) The system of claim 1, wherein the power factor compensator comprises:

a coil, rectifying diode and smoothing condenser for converting the rectified DC voltage into a PFC output voltage;

a feedback detector for distributing the PFC output voltage to two resistances and outputting a feedback voltage;

a PFC controller for receiving the feedback voltage from a connection point of the two resistances, and outputting a control signal for adjusting a power factor of the PFC output voltage; and

a MOSFET unit for receiving the control signal outputted from the PFC controller by a gate and performing ON/OFF.

6. (Original) The system of claim 1, wherein the inverter circuit unit includes a half-bridge type inverter which has two MOSFETs and a diode is inserted

between a drain and a source of the MOSFET.

7. (Original) The system of claim 1, wherein the inverter circuit unit is driven at a predetermined frequency, preferably, at a frequency of 20 KHz or higher.

8. (Previously Presented) A flicker removing method using a low-noise microwave lighting system, comprising:

a) rectifying general AC power and outputting a DC voltage;

b) increasing the DC voltage through a PFC circuit for improvement of a power factor to reduce a ripple;

c) receiving the DC voltage, varying a frequency of the DC voltage through a half-bridge, and outputting an AC voltage; and

d) receiving the AC voltage and driving a magnetron, wherein the step b) comprises,

converting the rectified DC voltage into the PFC output voltage,

distributing the PFC output voltage to two resistances and outputting a feedback voltage,

receiving the feedback voltage and outputting a control signal for adjusting the power factor of the PFC output voltage, and

receiving the control signal for adjusting the power factor of the PFC output voltage and performing ON/OFF.

9. (Original) The method of claim 8, wherein 120 Hz of ripple is reduced by using the PFC circuit, and the microwave light system is driven at a frequency of 20 KHz or higher by using the half-bridge inverter.

10. (Original) The method of claim 8, wherein the waveform inputted to the magnetron is a waveform in which a sinusoidal high frequency component of a high frequency band has been added to a square wave low frequency.